

River Severn Drought Order Statement of Reasons: 2026



Introduction

The Environment Agency and Natural Resources Wales are jointly applying for an ordinary drought order under section 73(3)(a) of the Water Resources Act 1991 ("The Act") to amend the Clywedog Reservoir Joint Authority Act 1963 (amended 1979) and the Shropshire Groundwater Scheme abstraction licence (18/54/04/1118). The order would allow reduced support flows on the River Severn, conserving water in Llyn Clywedog Reservoir so releases can continue for longer during the current exceptional drought.

The application is due to the exceptional shortage of rainfall, there exists or is threatened a deficiency in the flow and level of the River Severn which poses a serious threat to the flora and fauna which are dependent on this water.

The proposed six-month order would maintain lower, more sustainable river flows rather than risk exhausting reservoir reserves and causing sudden, severe declines in river levels. Without the order, releases from Clywedog could cease, potentially leading to record low flows, environmental stress, and drying of parts of the upper Severn.

Any environmental impacts are expected to be temporary, with natural recovery anticipated within one to three years once normal rainfall returns. Regulators consider the drought order to be the best available option for protecting the River Severn during the drought.

River Severn Regulation System

Following the 1959 drought and rising abstraction demands, a water resources review identified the need for a reservoir to safeguard River Severn flows and future water supplies. The resulting Llyn Clywedog Reservoir, established under the Joint Authority Act (1963) by water companies and British Waterways (now the Canal & River Trust), was built to regulate river flows. Initially, a minimum flow target of 727 Ml/d was set at Bewdley, which was increased in 1979 to a rolling 5-day mean of 850 Ml/d to improve reliability for growing downstream abstractions.

Today, the River Severn regulation system supports public water supply, navigation and environmental needs by releasing stored water during dry periods to maintain prescribed flows. This sustains fisheries, conservation, recreation and effluent dilution, while reducing the low-flow stress that would otherwise occur in the river and its tributaries. There are three storage components to the Severn regulation system, illustrated in Figure 1;

- The full resource allocation from Llyn Clywedog Reservoir;
- Limited resources from the Lake Vyrnwy reservoir water bank; and the
- Shropshire Groundwater Scheme (SGS).

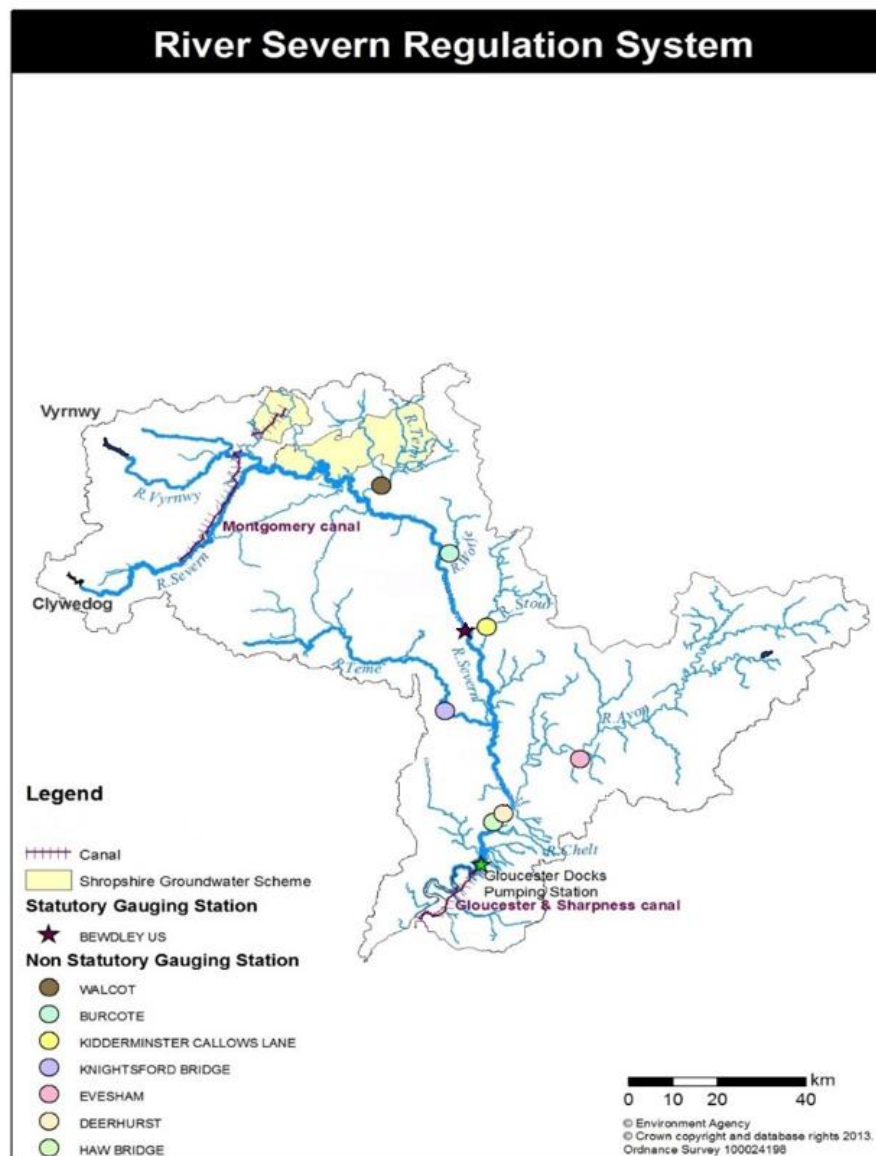


Figure 1: River Severn Regulation system

Draft of the proposed drought order

The River Severn Drought Order proposal includes:

- capping the maximum release from Llyn Clywedog reservoir at 300 megalitres per day (MI/d);
- reducing the prescribed flow at Bewdley from a single daily mean of 727 MI/d and 850 MI/d averaged over 5 days to a target of 730 MI/d averaged over 5 days;
- reducing the prescribed flow at Bewdley below the target flow of 730 MI/d averaged over 5 days if River Severn Regulation releases can no longer achieve it;
- imposing a 5% reduction on water company licensed abstractions on the River Severn;
- imposing a 300 MI/d abstraction cap on the Gloucester Docks abstraction for the Gloucester & Sharpness Canal in England, when flows at Deerhurst or Haw Bridge gauge are below 1,200 MI/d;
- capping releases from Llyn Clywedog reservoir to 1.5% of remaining storage if storage in Llyn Clywedog reservoir falls below the 'emergency storage' trigger.

Area of impact

Figure 2 displays the area which could potentially be impacted (positively or negatively) by the River Severn Drought Order. All impact assessments have focused on these areas, connected conservation sites (refer to Appendix A) have been individually screened and taken through the Habitat Regulation Assessment where appropriate.

The River Severn Drought Order impacts directly ('Primary Path') upon Llyn Clywedog reservoir in Wales, and directly downstream along the River Severn into the Severn Estuary at Bristol.

Several connected tributaries are sensitive to alterations because of migratory species trying to reach spawning grounds; these have been identified as 'Secondary Paths.' Due to the role of Lake Vyrnwy in the regulation system, altering releases from Llyn Clywedog will also have direct impact on Lake Vyrnwy, and the reach of the Afon Vyrnwy from the reservoir downstream has therefore also been marked as a 'Primary Path'.

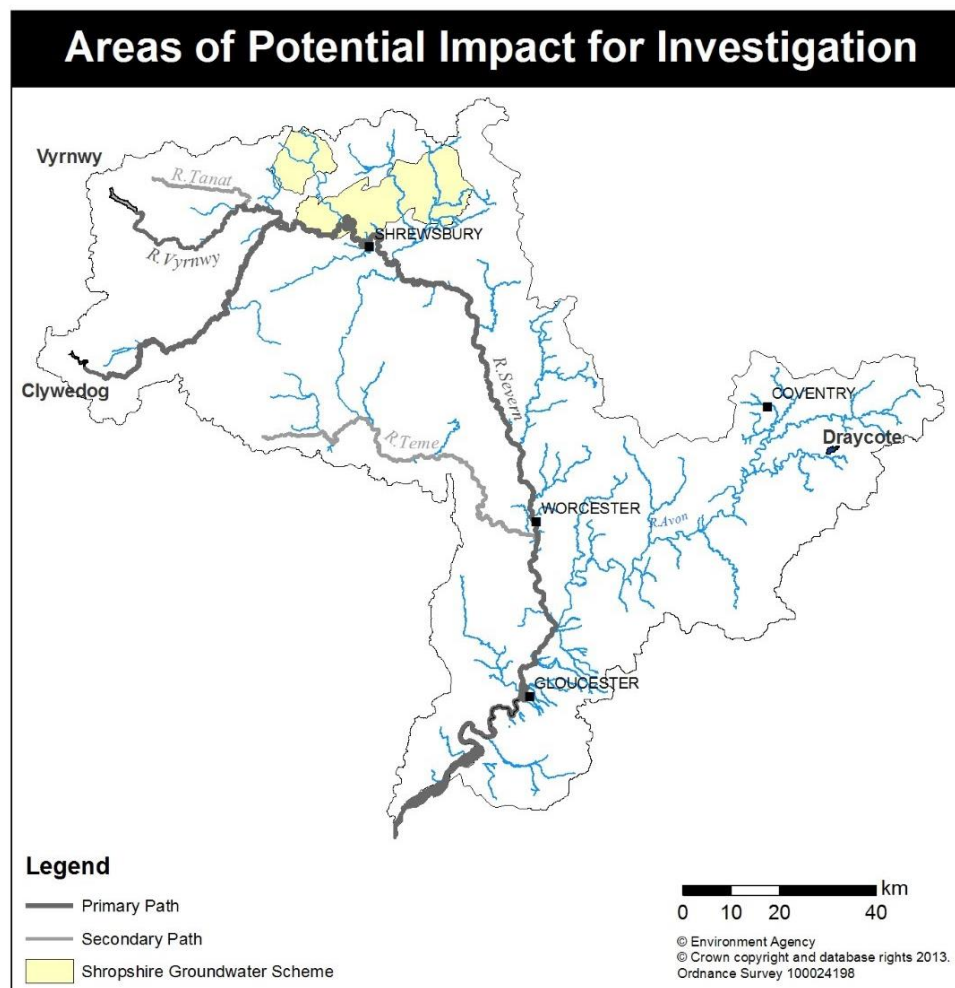


Figure 2: Areas of potential impact from the River Severn Drought Order

Description of the River Severn Drought Order

The Clywedog maximum release cap of 300 MI/d has been set to reduce the risk of Llyn Clywedog reaching 'dead water' during drought conditions. At dead water, water can no longer be abstracted from Llyn Clywedog. If Llyn Clywedog reservoir level reaches dead water, flows and water levels along the whole River Severn would be severely reduced. This would have a significant impact on the environment and people that rely on water from the River Severn.

Lowering the prescribed flow at Bewdley aims to balance the existing environmental needs against the need to preserve water to safeguard both people and the environment if the drought continues. The target of 730 MI/d is based on an assessment made in 1960 following the 1959 drought (Environment Agency, pers. comm). A paper published by the National Rivers Authority¹ indicated that, while 850 MI/d would be preferable, 730 MI/d could be accepted as a minimum flow in the middle of the river to protect fish.

A reduction in water company licensed abstractions aims to reduce the pressure on remaining water resources in the Severn Regulation system whilst balancing the need to protect abstraction for public water supply. For licences with a 100 day condition, a 5% reduction will be applied to the remaining 100 day volume and the pro-rata volume from day 101. For licences without a 100 day condition, a 5% reduction will be applied to the daily licensed volume.

During River Severn Drought Order implementation, when flows at Deerhurst drop below 1200 MI/d the Gloucester & Sharpness Canal abstraction from the River Severn will be capped at 300 MI/d. The Habitats Regulation Assessment concluded this abstraction cap would ensure no significant effect on the National Site Network.

If all the above drought management strategies cannot prevent storage in Clywedog declining below the 'emergency storage' trigger, then the release from Llyn Clywedog will be capped to 1.5% of remaining available storage, rationing out the remaining water to provide some regulation support until dead storage is reached and releases are no longer possible. At this stage it is no longer possible to maintain a prescribed flow at Bewdley as water resources are becoming exhausted.

A Case for Exceptional Shortage of Rain (ESoR)

A separate ESoR evidence report produced in August 2026 has been submitted as part of this application.

Timeline/actions taken in 2026 (1st January to early-August)

April

- 22nd - Pre Season Regulation Meeting with Stakeholders. Stakeholders advised that due to full reservoir storage, high groundwater levels and unsettled weather initial regulation risk requirement was low

¹ River Severn Control Rules Review Position Statement, NRA, 1994.

May

- 1st - River Severn Regulation Alert Issued to Stakeholders

June

- 12th - Llyn Clywedog 100% full and spilling
- 20th - Regulation Day 1 (from day 1 all stakeholders are informed of daily releases and flows and given weekly updates of reservoir storage).
- 22nd - Notification of Start of Regulation sent to Stakeholders
- 22nd - Notification that licence restrictions apply to licences due to flow dropping below 1100 MI/d at Bewdley
- 26th - Notification that Regulation Releases from Clywedog may exceed 500 MI/d sent to Stakeholders
- 29th - Notification that Releases from Clywedog have exceeded 300 MI/d sent to Stakeholders
- 29th - Notification that Shropshire Groundwater Scheme may be needed within 2 weeks sent to Stakeholders

July

- 4th - Llyn Clywedog at 90% capacity
- 13th - Severn Regulation risk requirement moved from low to medium due to water and weather conditions, all stakeholders notified
- 13th - All 5 phases of Shropshire Groundwater Scheme activated over 5 days.
- 13th - Notification sent to Stakeholders that Shropshire Groundwater Scheme had been activated
- 15th - Llyn Clywedog at 80% capacity
- 20th - July Severn Regulation risk requirement moved from medium to high due to water and weather conditions, all stakeholders notified
- 25th - Llyn Clywedog at 70% capacity

August

- 3rd - Commencement of River Severn Drought Management Group with Stakeholders
- 3rd - Water Abstraction Group (WAG) and National Farmers Union (NFU) sent briefing note advising on managing water resources under current scenario
- 5th - Llyn Clywedog at 60% capacity
- 6th - Drought Alert curve crossed
- 8th - Regulation Day 50
- 16th - Llyn Clywedog at 50% capacity
- 17th - Second meeting of River Severn Drought Management Group

Statement of Need for Water

The purpose of Llyn Clywedog is to support River Severn Regulation, providing a large strategic source of surface water to supplement flows in the River Severn, balancing the interests of people and the environment. It is the primary source of water to the River Severn regulation system helping to support drinking water for 6 million people and businesses in the West Midlands conurbations.

Low storage in Llyn Clywedog has occurred due to an exceptional shortage of rainfall (refer to the ESoR document). During this drought, the demand on Llyn Clywedog storage has been significant and prolonged (59 consecutive days so far).

The River Severn Drought Order is designed to preserve Llyn Clywedog storage. It enables reduced sustained river support during prolonged drought. Without it, in the absence of any meaningful rain, continued releases of 500 Ml/d or higher will be needed to maintain flows at Bewdley, depleting reservoir storage by around 1% per day and potentially exhausting supplies within the regulation season.

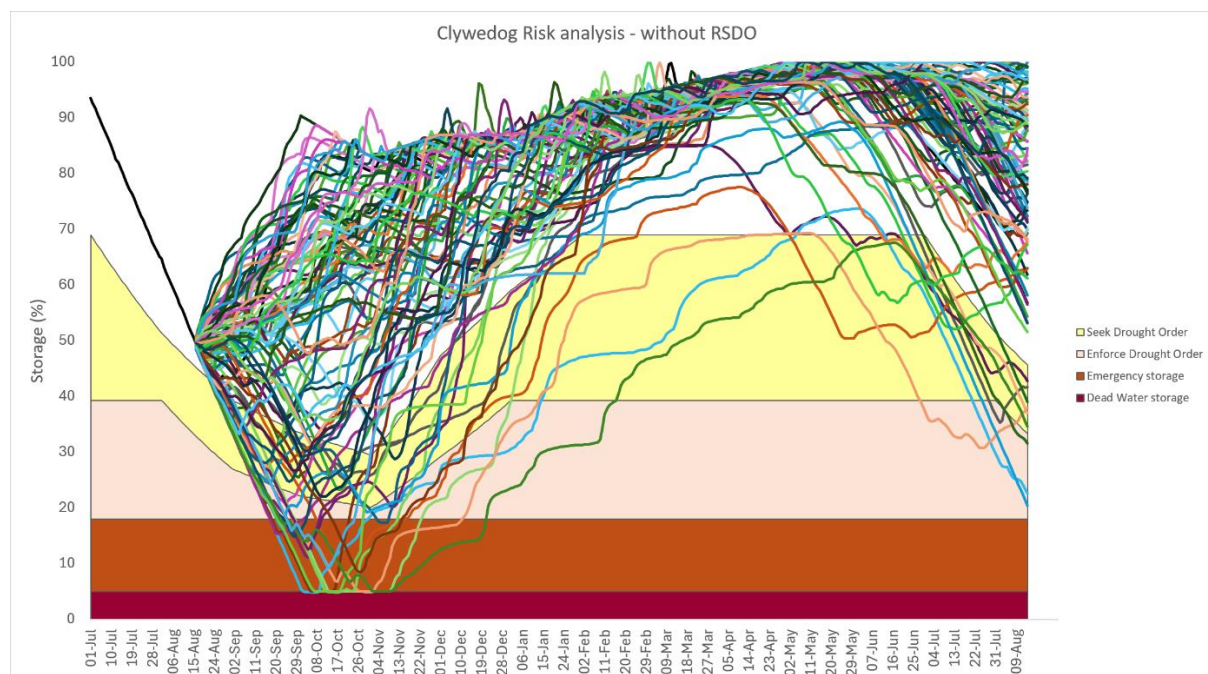
If storage is exhausted (known as dead water), River Severn flows could fall dramatically, with parts of the upper river drying up and the lower tidal river facing increased saline intrusion. This would damage habitats, reduce water quality, hinder fish migration and navigation, and threaten public water supplies due to poor water quality and insufficient abstraction levels.

Protecting storage is also important for future resilience. If drought continues into a second year, insufficient refill of Llyn Clywedog could worsen environmental and water supply impacts.

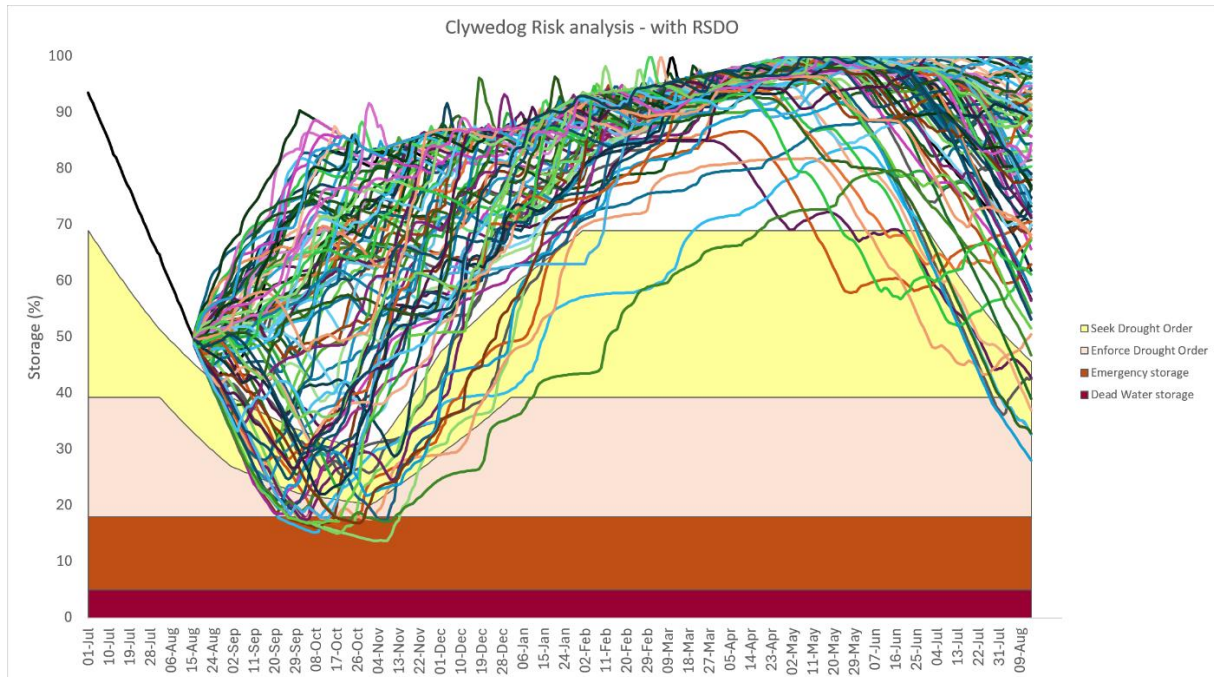
The Environment Agency and Natural Resources Wales consider it preferable to use the Drought Order to maintain lower flows for longer rather than sustain higher flows and risk running out of water completely.

The Drought Order application is being submitted a week in advance of reaching 'seek Drought Order' trigger level. This is due to the exceptionally dry hot weather we've experienced, lack of meaningful rainfall in the forecast, and reservoir storage projections show there is a high likelihood of reaching 'dead water', where no releases are made, if action is not taken now.

The graph below shows the forecast storage from present day if the weather of each of the 97 years from 1918-2014 were repeated and the River Severn Drought Order was not implemented. This analysis shows 'emergency storage' levels would be reached in 16 of the years and 'dead water' in seven of the years.



However if the Drought Order is implemented (see graph below), there are fewer occasions of Llyn Clywedog reaching 'emergency storage' (13 years) and no years reaching 'dead water'.



Alternative Sources Considered

The River Severn Drought Order is a measure of last resort that the Environment Agency and Natural Resources Wales can use to protect river ecology and maintain water supplies during severe drought. Prior to applying for the Order, all measures set out in the West Midlands Drought Plan have been implemented, including support from the Shropshire Groundwater Scheme, use of the Lake Vyrnwy water bank, irrigation restrictions where appropriate, and engagement with water users and the farming community.

The Environment Agency and Natural Resources Wales have worked closely with water companies throughout the drought and encouraged the proactive introduction of temporary use bans to reduce pressure on River Severn abstractions and slow depletion of Llyn Clywedog, although this advice has not been adopted. Alternative water resources within the catchment are limited. Llyn Clywedog and the Shropshire Groundwater Scheme together provide up to 82,000 Ml of strategic regulation storage, with no equivalent alternatives available. Lake Vyrnwy is primarily used by United Utilities for public water supply in northwest England, and its storage is already under pressure, while water company bankside storage reservoirs are filled from the River Severn and cannot provide an independent source.

Although some water companies can move water within their supply networks, widespread drought conditions have restricted this flexibility. Modelling indicates that if Llyn Clywedog storage falls to the drought order trigger level, drought impacts across the region will be severe and no viable alternative measures will remain. The Drought Order is therefore necessary to conserve remaining resources in Llyn Clywedog, extend regulation support on the River Severn, protect the river environment, and help secure public water supplies.

Potential impact of the drought powers and mitigation measures

Full details of the environmental assessment, monitoring and mitigation measures for the River Severn Drought Order are provided in the accompanying Environmental Report, appendices and Habitats Regulations Assessment.

The Drought Order would temporarily reduce flows and water levels in the River Severn to conserve water in Llyn Clywedog reservoir during prolonged drought conditions. Environmental assessments indicate that Water Framework Directive (WFD) standards would not be breached, water quality would not be significantly affected, and river flows would generally remain close to those expected under natural drought conditions.

Modelling shows that without the Drought Order, Llyn Clywedog could be depleted during an extended drought, resulting in severe impacts on river levels, the environment and local communities. By conserving reservoir storage earlier, releases can continue throughout the most severe stages of a drought, helping maintain flows and preventing the upper River Severn from drying out.

The Order would also provide longer-term benefits by increasing the likelihood of reservoir refill and improving resilience for subsequent years, reducing the need for further drought interventions. Predicted impacts are temporary, with no new WFD failures expected, and environmental recovery should occur naturally within one to three years after normal rainfall returns.

An in-combination assessment identified potential risks to the lower River Severn and migratory fish under extreme drought conditions when considered alongside other abstractions. To protect the Severn Estuary and meet Habitats Regulations requirements, an abstraction cap of 300 MI/d would be applied to the Canal & River Trust when flows at Deerhurst fall below 1,200 MI/d. This mitigation measure is intended to reduce potential environmental impacts.

Comments from specified bodies

Natural England and Natural Resources Wales have been consulted and accept the conclusions of the Habitats Regulations Assessment. They understand the River Severn Drought Order seeks to protect the flora and fauna by lowering flows to prolong the amount of time regulation flow support can be provided.